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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,235	08/30/2005	Samuli Siltanen	2542-00053	8189

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EXAMINER

TANINGCO, ALEXANDER H

ART UNIT	PAPER NUMBER
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2882

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/526,235	SILTANEN ET AL.	
	Examiner	Art Unit	
	Alexander H. Taningco	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1, 2, 3, 5, 10, 11, and 17-23 are objected to because of the following informalities:

In Claim 1, line 3, delete “(4)”; line 7, delete “(4)”; line 18, delete “(4)”

In Claim 2, line 21, delete “(4)”

In Claim 3, line 26, delete “(4)”

In Claim 5, line 7, delete “(4)”

In Claim 10, line 22, delete “(4)”

In Claim 11, line 26, delete “(4)”

In Claim 17, line 14, delete “(4)”

In Claim 18, line 23, delete “(4)”

In Claim 19, line 1, delete “(5)”; line 2, delete “(4)”; line 3, delete “(5)”; line 4, “(15)”
and “(4)”; line 6, delete “(2)”; line 8, delete “(6)”; line 9, delete “(4)”; line 10 delete “(15)”; line
22, delete “(4)”

In Claim 20, line 24, delete “(5)”; line 25, delete “(4)”

In Claim 21, line 29, delete “(5)”; line 30, delete “(4)”

In Claim 22, line 4, delete “(5)”

In Claim 23, line 14, delete “(5)”; line 16, delete “(15)” and “(4)”; line 17, delete “(4)”

In Claim 24, line 20, delete “(5)”; line 22, delete “(15)” and “(4)”

In Claim 25, line 31, delete “(5)”; line 3, delete “(15)” and “(4)”

In Claim 26, line 18, delete “(5)”

In Claim 27, line 30, delete “(5)”; line 32, delete “(15)” and “(4)”

In Claim 28, line 4, delete “(5)”; line 6, delete “(15)” and “(4)”

In Claim 29, line 11, delete “(5)”; line 14, delete “(15)” and “(4)”

In Claim 30, line 18, delete “(5)”; line 20, delete “(15)” and “(4)”

In Claim 31, line 24, delete “(5)”; line 26, delete “(15)” and “(4)”

In Claim 32, line 29, delete “(5)”

In Claim 33, line 1, delete “(5)”

In Claim 34, line 4, delete “(5)”

In Claim 35, line 6, delete “(5)”; line 9, delete “(15)” and “(4)”

In Claim 36, line 19, delete “(5)”; line 21, delete “(4)”

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 1-18 & 19-36, said claims are toward a computer implemented method and an apparatus, respectively, involving computational data. Though the properties calculated by the model are physical properties, the data is none-the-less generated within a computer without a physical manifestation. Thus, these claims do not produce a result which meet the standard of being concrete, tangible and useful. The claims must be for a practical application of the abstract idea, law of nature, or natural phenomenon. *Diehr*, 450 U.S. at 187, 209 USPQ at 8 (“application of a law of nature or mathematical formula to a known structure or process may

well be deserving of patent protection.”) Benson, 409 U.S. at 71, 175 USPQ at 676 (rejecting formula claim because it “has no substantial practical application”).

To satisfy section 101 requirements, the claim must be for a practical application of the 101 judicial exception, which can be identified in various ways:

1. The claimed invention “transforms” an article of physical object to a different state or thing.
2. The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed in MPEP 2106, and See also:

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf.

The manipulation of data to obtain a three-dimensional information of the object is performed by the computer implementing programs and is therefore nonstatutory subject matter. Manipulation of data does not include a physical transformation outside of a computer or representation thereof. A process consisting solely of mathematical operations, i.e., utilizing Bayes’ formula to produce a three-dimensional information of the object, does not manipulate appropriate subject matter and is not deemed to be concrete, tangible, and useful and is therefore non-statutory.

Conclusion

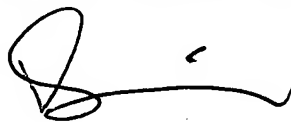
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brandt US 2005/0105694 shows the object is modeled mathematically independently of X-ray imaging, object is X-radiated from at least two different directions, and projection data and said mathematical modeling of the object are utilized in Bayesian inversion based on Bayes formula to produce three-dimensional information of the object.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander H. Taningco whose telephone number is (571) 272-8048. The examiner can normally be reached on Mon-Fri 8:00-4:30 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alexander Taningco
Patent Examiner
Art Unit 2882
571.272.8048



Courtney Thomas
Primary Examiner